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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/472,534	12/27/1999	ANTHONY MAZZURCO	036560.6630	8878

24587 7590 04/07/2006

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EXAMINER

JAGANNATHAN, MELANIE

ART UNIT PAPER NUMBER

2616

DATE MAILED: 04/07/2006

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/472,534
Filing Date: December 27, 1999
Appellant(s): MAZZURCO ET AL.

MAILED
APR 07 2006
GROUP 2800

Jessica W. Smith
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 12/21/2005 appealing from the Office action mailed June 27, 2005 and Advisory Action mailed October 27, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

NEW GROUND(S) OF REJECTION

Claims 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Tokura et al. US 5,469,428.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,479,608	Richardson	12-1995
5,469,428	Tokura et al.	11-1995

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 16-22 and 25-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Richardson US 5,479,608.

Regarding claims 16-21, 25-26, the claimed receiving one or more working channels and at least one protection channel at an input interface to transmission switch is disclosed by two digital cross-connects (Figure 1, elements 2A, 2B) connected with working paths (elements 41-4n) and protection path (element P). The claimed

performing a selection at the input interface between the working and protection channels in response to signal quality is disclosed by if signal failure is detected on one of working paths (Figures 3a, 3b, 3c, element 4_{1BA}) at port MA11, the protection path (P_{BA}) is selected for use. The claimed switching the selected ones of working and protection channels through one or more predetermined matrix connections where the matrix connections are not disrupted is disclosed by in light of a signal failure at member input port MA11, signal is bridged from head port B1I to both member input port MB10 and protection output port PBO across center stage (Figures 3a, 3b, 3c, element 22B). Thus, a valid signal is being received at node A via protection path P_{BA} and routed to head output port A10 in same manner as normal function but failure is avoided. Furthermore, the signal is still being provided by node B over both protection path and also member path 4 and is still received at input port MA11. See column 9, lines 46-54 and column 10, lines 43-52.

Regarding claim 22, the claimed 1:1 linear automatic protection scheme is disclosed by 1:1 redundancy scheme. See columns 1, lines 56-67.

NEW GROUND(S) OF REJECTION

3. Claims 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Tokura et al. US 5,469,428.

Regarding claim 23, the claimed method for line protection in a transmission switch comprising receiving at least one inbound working channel and at least one inbound protection channel to the transmission switch is disclosed by ring network with

node (Figure 5, element 13) having inbound working paths (Figure 5, elements 31-a and 31-b) and inbound protection paths (Figure 5, elements 31-c and 31-d). The claimed providing at least one outbound working channel and at least one outbound protection channel is disclosed by node having outbound working paths (Figure 5, elements 32-c and 32-d) and protection paths (Figure 5, elements 32-a and 32-b). The claimed switching the inbound working channel and inbound protection channel through matrix connections to outbound working channel and outbound protection channel is disclosed by loop-back of inbound working paths and protection paths onto outbound working and protection paths at node (Figure 5, element 13). The claimed in response to line failure, routing information on inbound working channel to outbound protection channel at an input/output interface is disclosed by loop-back of inbound working paths (Figure 5, elements 31-a and 31-b) onto protection paths (Figure 5, elements 32-a and 32-b). The claimed routing information on inbound protection channel to outbound working channel at an input/output interface is disclosed by loop-back of inbound protection paths (Figure 5, elements 31-c and 31-d) onto working paths (Figure 5, elements 32-c and 32-d). The claimed wherein routing of the working and protection channels at an input/output interface prevents information from being provided to the matrix such that matrix connections are not disrupted is disclosed by loop-back performed in path switch (Figure 5, element 52) in node and not switched through links to next node (Figure 5, element 14).

Regarding claim 24, the claimed network protection is a bidirectional line switched ring protection implementing a ring switch is disclosed by dual ring network

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with nodes and bidirectional working and protection paths. See column 2, lines 42-47 and Figures 1, 2 and 5.

(10) Response to Argument

Examiner agrees with details of reference, Richardson, and the instant application, as provided by Appellant. However, the arguments regarding the art rejection are not persuasive for the following reasons:

In Section 7.1, Appellant states the Richardson reference fails to teach all of the limitations positively recited in Appellant's independent claims and, therefore, a proper prima facie case of anticipation against Appellant's independent claims has not been made under 35 U.S.C. 102(b).

In Sections 7.1a and 7.1c, Appellant addresses rejection of independent claim 16 and dependent claims 17-22 and rejection of independent claim 25 and dependent claim 26 respectively.

Appellant asserts Richardson reference fails to disclose the requirement of claim 16 of "switching the selected ones of the working and protection channels through one or more predetermined matrix connections in a matrix in the transmission switch, wherein the predetermined matrix connections are not disrupted due to the selection at the input interface between the working and protection channels." Appellant similarly asserts Richardson reference fails to disclose the requirement of claim 25 of "a switching matrix that switches the selected one of the inbound working and protection channels over a predetermined matrix connection, wherein the predetermined matrix

connection is not disrupted in response to the selection of the inbound working and protection channel." Appellant states that page 7, lines 3-5 of instant specification disclose time consuming creation and deletion of matrix connections to accommodate a protection switch is avoided by present invention. Protection switching is performed at the interfaces to the cross-connect switch and not in the switching matrix thus avoiding any creation or deletion of matrix connections. The switching matrix can maintain its pre-determined matrix connections regardless of which one of working channel and protection channel is selected.

Examiner respectfully disagrees with Appellant's assertion. Richardson discloses if signal failure is detected on a working path (Figures 3b, 3c, element 4_{1BA}) at port MA1I, the protection path, P_{BA}, is used. Examiner asserts Richardson in Figures 3b and 3c show that in light of a signal failure at member input port MA1I, signal is bridged from first stage head port B1I in cross-connect switch (Figure 3b, element 2B) to both third stage member input port MB1O and protection output port PBO through center stage (Figure 3b, element 22B) in node B. Examiner interprets center stage in cross-connect switch as being claimed matrix in a transmission switch. Regarding the "...wherein the predetermined matrix connections are not disrupted due to the selection at the input interface between the working and protection channels", Richardson discloses the signal is still being provided over connections in center stage in node B to input interface of third stage, specifically to protection port PBO for transmission over protection path P_{BA} and also to member port MB1O. Examiner believes this teaches idea of non-disruption of matrix connections. Please see column 10, lines 43-67,

column 11, lines 1-32 and Figures 3b, 3c. The signal is being received at node A via protection path P_{BA} and routed to head output port A10 in same manner as normal function but failure is avoided. Therefore, rejection is proper.

Appellant argues the Richardson reference teaches away from the present invention by disclosing a switching matrix that is disrupted due to the selection between working and protection channels at an input interface. Appellant describes the three-stage Clos matrix including first/third stages and center stages. Appellant asserts that Richardson at column 10, lines 43-45 discloses in response to a signal failure event at port MA1I, "if input head port B1I has a valid signal...node B effects a third stage bridge in first/third stage (Figure 3B, element 20₃). According to Appellant, the third stage of Node B is disrupted by the connection to port PBO. In addition, Appellant argues the Richardson reference discloses Node A performing a first stage switch, the signal now being received at protection input port PAI instead of previously received input port MA1I which experienced failure. Thus, Appellant contends the Richardson reference is clearly illustrating that matrix connections in first stage of switching matrix in node A are switched and matrix connections in third stage of node B are switched to select between working and protection channels.

Examiner respectfully disagrees. Examiner agrees that Richardson discloses a third stage bridge for signal from input head port B1I to reach both member input port MB1O and protection port PBO. However, Examiner interprets center stage in cross-connect switch as being claimed matrix in a transmission switch. Examiner would like to point out that connection in center stage between input head port B1I in first stage to

ports in third stage is not disrupted due to the signal failure and the subsequent need to use protection port PBO and protection path P_{BA} . The signal from B1I port is still being provided over pre-existing connection in center stage in node B to input interface of third stage, specifically to protection port PBO for transmission over protection path P_{BA} and also to member port MB1O. The signal is being received at node A via protection path P_{BA} and routed to head output port A1O in same manner as normal function but failure is avoided. Examiner believes this teaches claimed subject matter of non-disruption of matrix connections.

In Section 7.1b, Appellant addresses rejection of independent claim 23 and dependent claim 24.

Appellant argues Richardson reference fails to disclose the requirement of "in response to line failure, routing information on inbound working channel to outbound protection channel at an input/output interface, wherein routing of the working and protection channels at input/output interface prevents information from being provided to the matrix such that matrix connections are not disrupted." Appellant states that page 7, lines 3-5 of instant specification disclose time consuming creation and deletion of matrix connections to accommodate a protection switch is avoided by present invention. Protection switching is performed at the interfaces to the cross-connect switch and not in the switching matrix thus avoiding any creation or deletion of matrix connections and the switching matrix can maintain its pre-determined matrix connections regardless of which one of working channel and protection channel is selected. Additionally,

Appellant discusses Figures 4A and 4B and page 8, lines 7-22 of instant application that disclose bidirectional line switched ring protection scheme.

Appellant's arguments regarding claims 23 and 24 are persuasive. Regrettably, Examiner submits new grounds of rejection for independent claim 23 and dependent claim 24 using reference Tokura et al. US 5,469,428 which teaches the above argued features. Examiner kindly directs Appellant to Section (9) Grounds of Rejection for details of rejection.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

This examiner's answer contains a new ground of rejection set forth in section **(9)** above. Accordingly, appellant must within **TWO MONTHS** from the date of this answer exercise one of the following two options to avoid *sua sponte* **dismissal of the appeal** as to the claims subject to the new ground of rejection:

(1) **Reopen prosecution.** Request that prosecution be reopened before the primary examiner by filing a reply under 37 CFR 1.111 with or without amendment, affidavit or other evidence. Any amendment, affidavit or other evidence must be relevant to the new grounds of rejection. A request that complies with 37 CFR

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41.39(b)(1) will be entered and considered. Any request that prosecution be reopened will be treated as a request to withdraw the appeal.

(2) **Maintain appeal.** Request that the appeal be maintained by filing a reply brief as set forth in 37 CFR 41.41. Such a reply brief must address each new ground of rejection as set forth in 37 CFR 41.37(c)(1)(vii) and should be in compliance with the other requirements of 37 CFR 41.37(c). If a reply brief filed pursuant to 37 CFR 41.39(b)(2) is accompanied by any amendment, affidavit or other evidence, it shall be treated as a request that prosecution be reopened before the primary examiner under 37 CFR 41.39(b)(1).

Extensions of time under 37 CFR 1.136(a) are not applicable to the TWO MONTH time period set forth above. See 37 CFR 1.136(b) for extensions of time to reply for patent applications and 37 CFR 1.550(c) for extensions of time to reply for ex parte reexamination proceedings.

Respectfully submitted,

A handwritten signature in cursive script, followed by the date "4/3/06".

Melanie Jagannathan

Workgroup 2616

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A Technology Center Director or designee must personally approve the new ground(s) of rejection set forth in section (9) above by signing below:

Reinhold J. Engelf (QAS)
for Jin F. Ng
Technology Center Director

Conferees:

Seema S. Rao
Seema S. Rao 4/3/06
SEEMA S. RAO
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